

This Class 216 is considered to be an integral part of Class 156 (see the Class 156 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 156.

2        **ETCHING OF SEMICONDUCTOR MATERIAL  
TO PRODUCE AN ARTICLE HAVING A  
NONELECTRICAL FUNCTION**

3        **FORMING OR TREATING JOSEPHSON  
JUNCTION ARTICLE**

4        **FORMING OR TREATING A SIGN OR  
MATERIAL USEFUL IN A SIGN**

5        .Sign or material is  
          electroluminescent

6        **FORMING OR TREATING MATERIAL  
USEFUL IN A CAPACITOR**

7        **FORMING OR TREATING FIBROUS  
ARTICLE OR FIBER REINFORCED  
COMPOSITE STRUCTURE**

8        **FORMING OR TREATING CYLINDRICAL  
OR TUBULAR ARTICLE HAVING  
PATTERN OR DESIGN ON ITS  
SURFACE**

9        .Forming or treating an embossing  
          cylinder or tubular article

10       .Forming or treating liquid  
          transfer cylinder or tubular  
          article (e.g., printing roll,  
          etc.)

11       **FORMING OR TREATING AN ARTICLE  
WHOSE FINAL CONFIGURATION HAS  
A PROJECTION**

12       **FORMING OR TREATING MASK USED FOR  
ITS NONETCHING FUNCTION (E.G.,  
SHADOW MASK, X-RAY MASK, ETC.)**

13       **FORMING OR TREATING ELECTRICAL  
CONDUCTOR ARTICLE (E.G.,  
CIRCUIT, ETC.)**

14       .Forming or treating lead frame  
          or beam lead

15       .Forming or treating a crossover

16       .Forming or treating resistive  
          material

17       .Forming or treating of groove or  
          through hole

18       ..Filling or coating of groove or  
          through hole with a conductor  
          to form an electrical  
          interconnection

19       ..Filling or coating of groove or  
          through hole in a conductor  
          with an insulator

20       .Adhesive or autogenous bonding  
          of self-sustaining preforms  
          (e.g., prefabricated base,  
          etc.)

21       .Repairing circuit

22       **FORMING OR TREATING ARTICLE  
CONTAINING MAGNETICALLY  
RESPONSIVE MATERIAL**

23       **FORMING OR TREATING ARTICLE  
CONTAINING A LIQUID CRYSTAL  
MATERIAL**

24       **FORMING OR TREATING OPTICAL  
ARTICLE**

25       .Phosphor screen

26       .Lens

27       **FORMING OR TREATING THERMAL INK  
JET ARTICLE (E.G., PRINT HEAD,  
LIQUID JET RECORDING HEAD,  
ETC.)**

28       **FORMING OR TREATING AN ORNAMENTED  
ARTICLE**

29       .Wood surface treated or wood  
          grain produced

30       .Treating stone (e.g., marble,  
          etc.)

31       .Treating glass (e.g., mirror,  
          etc.)

32       .Treating elemental metal or  
          alloy thereof

33       **ADHESIVE OR AUTOGENOUS BONDING OF  
TWO OR MORE SELF-SUSTAINING  
PREFORMS WHEREIN AT LEAST TWO  
OF THE PREFORMS ARE NOT  
INTENDED TO BE REMOVED (E.G.,  
PREFABRICATED BASE, ETC.)**

34       .Etching improves or promotes  
          adherence of preforms being  
          bonded

35       ..Bonding of preform of metal or  
          an alloy thereof to a preform  
          of a nonmetal

36       .Removing at least one of the  
          self-sustaining preforms or a  
          portion thereof

37       **ETCHING AND COATING OCCUR IN THE  
SAME PROCESSING CHAMBER**

38       **PLANARIZING A NONPLANAR SURFACE**

39       **FORMING GROOVE OR HOLE IN A  
SUBSTRATE WHICH IS  
SUBSEQUENTLY FILLED OR COATED**

40	<b>FORMING PATTERN USING LIFT OFF TECHNIQUE</b>	65	..Using laser
41	<b>MASKING OF A SUBSTRATE USING MATERIAL RESISTANT TO AN ETCHANT (I.E., ETCH RESIST)</b>	66	..Using ion beam, ultraviolet, or visible light
42	.Resist material applied in particulate form or spray	67	..Using plasma
43	.Adhesively bonding resist to substrate	68	...Using coil to generate the plasma
44	.Mechanically forming pattern into a resist	69	...Using microwave to generate the plasma
45	.Mask is reusable (i.e., stencil)	70	...Magnetically enhancing the plasma
46	.Masking of sidewall	71	...Specific configuration of electrodes to generate the plasma
47	.Mask is multilayer resist	72	.Etching a multiple layered substrate where the etching condition used produces a different etching rate or characteristic between at least two of the layers of the substrate
48	.Mask is exposed to nonimaging radiation		
49	.Mask resist contains organic compound		
50	..Mask resist contains a color imparting agent		
51	.Mask resist contains inorganic material	73	.Etching vapor produced by evaporation, boiling, or sublimation
52	<b>MECHANICALLY SHAPING, DEFORMING, OR ABRADING OF SUBSTRATE</b>	74	.Etching inorganic substrate
53	.Nongaseous phase etching	75	..Substrate contains elemental metal, alloy thereof, or metal compound
54	<b>PATTERN OR DESIGN APPLIED BY TRANSFER</b>		
55	<b>HEATING OR BAKING OF SUBSTRATE PRIOR TO ETCHING TO CHANGE THE CHEMICAL PROPERTIES OF SUBSTRATE TOWARD THE ETCHANT</b>	76	...Etching of substrate containing at least one compound having at least one oxygen atom and at least one metal atom
56	<b>ETCHING TO PRODUCE POROUS OR PERFORATED ARTICLE</b>	77	...Etching of substrate containing elemental aluminum, or an alloy or compound thereof
57	<b>GAS PHASE AND NONGASEOUS PHASE ETCHING ON THE SAME SUBSTRATE</b>		
58	<b>GAS PHASE ETCHING OF SUBSTRATE</b>	78	...Etching of substrate containing elemental copper, or an alloy or compound thereof
59	.With measuring, testing, or inspecting		
60	..By optical means or of an optical property	79	..Etching silicon containing substrate
61	..By electrical means or of an electrical property	80	...Silicon containing substrate is glass
62	.Irradiating, ion implanting, alloying, diffusing, or chemically reacting the substrate prior to etching to change properties of substrate toward the etchant	81	..Etching elemental carbon containing substrate
63	.Application of energy to the gaseous etchant or to the substrate being etched	83	<b>NONGASEOUS PHASE ETCHING OF SUBSTRATE</b>
64	..Etchant is devoid of chlorocarbon or fluorocarbon compound (e.g., C.F.C., etc.)	84	.With measuring, testing, or inspecting
		85	..By optical means or of an optical property
		86	..By electrical means or of an electrical property

87 .Irradiating, ion implanting, alloying, diffusing, or chemically reacting the substrate prior to etching to change properties of substrate toward the etchant

88 .Using film of etchant between a stationary surface and a moving surface (e.g., chemical lapping, etc.)

89 ..Etchant contains solid particle (e.g., abrasive for polishing, etc.)

90 .Relative movement between the substrate and a confined pool of etchant

91 ..Rotating, repeated dipping, or advancing movement of substrate

92 .Projecting etchant against a moving substrate or controlling the angle or pattern projection of the etchant or controlling the angle or pattern of movement of the substrate

93 .Recycling, regenerating, or rejuvenating etchant

94 .Etching using radiation (e.g., laser, electron-beam, ion-beam, etc.)

95 .Substrate is multilayered

96 .Etching inorganic substrate

97 ..Substrate is glass

98 ...Frosting glass

99 ..Substrate contains silicon or silicon compound

100 ..Substrate contains elemental metal, alloy thereof, or metal compound

101 ...Etching of a compound containing at least one oxygen atom and at least one metal atom

102 ...Metal is elemental aluminum, an alloy, or compound thereof

103 ....Etchant contains acid

104 .....Etchant contains fluoride ion

105 ...Metal is elemental copper, an alloy, or compound thereof

106 ....Etchant contains acid

107 .....Etchant contains fluoride ion

108 ...Etchant contains acid

109 ....Etchant contains fluoride ion

#### **FOREIGN ART COLLECTIONS**

FOR 000 **CLASS-RELATED FOREIGN DOCUMENTS**

